be downloaded onto a smartphone. There are many opportunities for future work including conducting an evaluation of the MMP in use over time and across different sectors, and to determine what patients actually record in the MMP.

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P037 EVALUATING THE INTRODUCTION OF DOSE BANDED CEFOTAXIME USING PRE- FILLED SYRINGES, FOR EARLY ONSET SEPSIS ON A NEONATAL UNIT

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Background In December 2017, cefotaxime doses for treatment of early onset sepsis were banded according to weight. The dose-banding only applies to neonates <7 days old. The implementation of pre-filled syringes (PFS) supplied by the Pharmacy Technical Services Unit coincided with the introduction of cefotaxime dose-banding.

Aim To assess whether cefotaxime is prescribed according to the dose-banding guideline. To establish if batch numbers of PFS are reconciled on the electronic prescribing system (EPS). To determine whether introducing PFS has resulted in more neonates receiving the first dose of antibiotics within 1 hour of the decision to treat.

Methods An EPS report was generated for 2 groups of patients. Group A received cefotaxime from April to June 2018, group B received cefotaxime from September to November 2017, before dose-banding was introduced. Data collected included: weight; dose; time of prescribing and time of administration for the first dose; whether a PFS was used and if the batch number was reconciled electronically. Patients transferred into the unit were excluded as they had started their antibiotics prior to transfer.

Results 95.3% of group A, (n=85), received doses in accordance with the guideline, two doses were prescribed according to weight. Out of the 95.3% eligible to receive PFS, 91.4% of PFS were documented on the EPS. It was unknown whether PFS were used for the remaining patients. 90.5% of the PFS batch numbers were reconciled, 8.1% were not reconciled and 1.4% had incomplete records. 81.2% of group A received the first dose of antibiotics ≤60 minutes from the point of prescribing in comparison to 76.6% in group B (n=94). 58.8% of group A and 42.6% of group B had doses administered ≤30 minutes after prescribing. Both groups had 5 patients that did not receive their first dose until >2 hours after prescribing.

Conclusion The majority of prescribers are using the dose-banding guideline. 91.4% of doses have been administered using PFS, thereby reducing nursing time used for IV drug preparation. In 8.6% it could not be determined whether a PFS was used although prescription templates had been used. The template includes a mandatory box to say if a PFS has been used, nurses cannot sign the drug administration if it is empty. An outcome from this study is that this discrepancy will be investigated by the electronic prescribing team. Nurses are recording batch numbers onto the EPS in 90.5% of cases. Nurses will be reminded to reconcile batch numbers and making it a mandatory requirement on the EPS will be investigated Having PFS available has led to more patients receiving their dose within 30 minutes and slightly more receiving their doses within 60 minutes. However similar numbers are still receiving their doses >60 minutes after prescribing. Next steps will be to examine cases where antibiotics are delayed and identify causes. A limitation of this study is that it does not take into account how long it takes the prescriber to write the prescription after making the decision to treat.

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P038 HAS THE INTRODUCTION OF PLASMA- LYTE AS THE ROUTINE IV MAINTENANCE FLUID THERAPY REDUCED THE RISK OF IATROGENIC METABOLIC DISTURBANCES

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Aim Prior to July 2017, the hospital Trust had over twelve different IV fluid choices and there was no 'standard' fluid. This often led to confusion with prescribers and stock issues. The Trust made the decision to switch their routine maintenance fluid choice to Plasma-Lyte in July 2017. This was to simplify, standardise and streamline IV fluid choice, reduce the risk of iatrogenic metabolic disturbances, especially hyponatraemia associated with the current IV fluid use and to bring the Trust up to date with NICE guidelines.[1] An audit was carried out to investigate whether using Plasma-Lyte as the standard maintenance fluid has reduced the risk of hyponatraemia and hyper-chloraemia in patients prescribed maintenance fluids. The objectives were to identify patients prescribed maintenance fluids, check their electrolytes and check that the new IV fluid guideline had been followed appropriately.

Methods Data on patients receiving IV fluids were collected twice a week for 6 weeks, beginning in the first week of December 2017. All ward pharmacists working during the data collection period received guidance on the method of data collection. Once the appropriate details were collected on each chosen day, the forms were passed onto the investigator to process. The electronic prescribing system at the hospital trust enables access to all patients' blood results and medical notes, therefore, a separate data collection form could be completed with anonymised data retrospectively following the completion of the data collection period.

Results 145 patients were identified as having IV fluid prescribed, 68 of these had been prescribed Plasma-Lyte according to the Trust guidelines, however guidelines were only adhered to 68% of the time, with the other 32% comprising of patients either not having the correct fluid prescribed or patients having the correct fluid prescribed but not having the necessary monitoring required when receiving IV maintenance fluids. There was a marked reduction of patients experiencing hyponatraemia and hyperchloraemia since the introduction of Plasma-Lyte. Only 3% of patients audited experienced hyponatraemia when receiving Plasma-Lyte, compared to 14% from a previous audit of other maintenance fluids.

Conclusion The results shown are not surprising when the actual composition of Plasma-Lyte is evaluated. For example; Plasma-Lyte ± glucose contains 140 mmol/L of sodium and

98 mmol/L of chloride which matches serum exactly and is considered isotonic. Sodium chloride 0.45% only contains 77 mmol/L of sodium and sodium chloride 0.9% contains 154 mmol/L chloride, hence the reasons for hyponatraemia and hyperchloraemia when using these types of fluids. The audit results match what is reported in other controlled trials of fluid choices in that an isotonic fluid should be used as the chosen fluid when hydrating paediatric patients. A further audit in July 2018 would be beneficial to check that patients are continuing to benefit from the introduction of this fluid and not experiencing iatrogenic metabolic disturbances, but also look at other electrolytes such as potassium and to see if adherence to the guidelines has improved.

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P039 CONSIDERATION OF GUANFACINE FOR ADDITION TO THE ADHD PATHWAY FOLLOWING REVIEW OF EFFECTIVENESS

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Background Intuniv (guanfacine hydrochloride) is indicated for the treatment of attention deficit hyperactivity disorder (ADHD) in children and adolescents 6-17 years old for whom stimulants are not suitable, not tolerated or have been shown to be ineffective. In June 2016 the decision by All Wales Medicines Strategy Group (AWMSG) was that cost effectiveness had not been proven making it difficult to add the drug to our local prescribing formulary. Initially Individual Patient Funding Requests (IPFR) were submitted but this was not a sustainable approach. Following discussion at Women and Children's Clinical Board Medicines Management Group it was agreed that a Non Formulary request could be used if each was approved by the Community Child Health Clinical Director and Directorate Pharmacist and both stimulants and atomoxetine had been tried unless contraindicated. This would allow us to gain much needed experience of using the drug and allow us to evaluate where it should sit within the treatment pathway.

Aim To review the effectiveness of guanfacine in all children and young people for whom an IPFR or Non Formulary Form had been approved over 12 months May 2017 – April 2018

Methods Children and young people were identified from the IPFR and Non Formulary forms. The forms provided information on reasons for considering guanfacine, clinician and patient identifiers, other data, date, reason and age at initiation was collected from medical notes and electronic clinical system (PARIS). The maintenance dose, any side effects and assessment of effect as well as reason and date stopped, if relevant were recorded.

Results 22 children and young people were reviewed consisting of 6 IPFR's and 16 non formulary forms. 100% of patients had previously taken stimulants and atomoxetine. 5 patients never started guanfacine.

17 patient's notes were reviewed. Average age at initiation was 13 (range 8-17).

9 (53%) patients have continued on guanfacine and the average maintenance dose was 3 mg daily (range 1–4 mg). 6 (35%) had a good response, 1 (6%) had some benefit, 2 (12%) limited benefit but better than no medication.

8 (47%) patients stopped treatment. 4 (24%) stopped due to increased challenging behaviour/anger/character changes, 1 (6%) borderline BP and dizziness, 1(6%) no response, 1 (6%) substance misuse and non-compliance, 1 (6%) vomiting, 76% were requested by CAMHS clinicians, 24% requested by community paediatricians.

Conclusion Guanfacine is an effective alternative treatment for some ADHD patients with a different mode of action and different side effect profile. A small number of patients would benefit from its inclusion in the Formulary. The children and young people on guanfacine had already had stimulants and atomoxetine unless contraindicated; historically the alternative for them has been non pharmacological interventions. Half of the patients on guanfacine received benefit. An Implementation Planning Document (IPD) has been submitted to the Clinical Board requesting addition to the formulary as a Hospital Only (HO) medicine and inclusion in the ADHD pathway. AWMSG are not due to review guanfacine.

P040 MONITORING DEFIBROTIDE USAGE IN PAEDIATRIC PATIENTS UNDERGOING HSCT WITH KNOWN RISK FACTORS FOR DEVELOPING VOD/SOS

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Aim Defibrotide is licensed for the treatment of hepatic venous occlusive disease (VOD) following haematopoeitic stem cell transplant (HSCT). Up to April 2015 defibrotide was used as prophylaxis against VOD in our HSCT patients who were considered at high-risk for developing VOD. This practice was discontinued due to the lack of evidence of efficacy and increasing costs of the drug. The aims of this audit were to identify patients undergoing HSCT who had one or more risk factors for the development of VOD, to measure the incidence of VOD in this patient cohort after the discontinuation of prophylactic defibrotide and calculate the cost savings associated with the discontinuation of prophylaxis.

Methods All patients who underwent HSCT between Oct 2015 and Dec 2016 were included. Patient's medical records were reviewed and risk factors for VOD were identified. Risk factors for developing VOD post HSCT in our patient cohort were defined following a literature review of peer-reviewed papers identifying paediatric specific risk factors.[1] [2] These were namely: patients aged ≤2 years, patients receiving a second transplant, conditioning with IV busulfan ± cyclophosphamide, and previous treatment with gemtuzumab ozogamicin. The theoretical dose of defibrotide for patients with known risk factors was calculated based on their weight at start of conditioning and the duration of treatment was based on the number of days conditioning the patient received plus 30 days following the date of transplant. The cost of a theoretical course of defibrotide for these patients was calculated to determine cost savings.

Results Of the 27 patients included in the study, 16 (59%) had one or more risk factors. The most common risk factor identified was conditioning with busulfan in patients ≤2 years